

VISIT...

A Cactus Odyssey

JOURNEYS IN THE WILDS OF
BOLIVIA, PERU, AND ARGENTINA

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CONTENTS

Preface	vii
Chapter 1.	
Cacti: Introduction, Biology, and History	1
Chapter 2.	
Lowlands of Eastern Bolivia: Cacti in the Forest's Shade	35
Chapter 3.	
Highlands of Central Bolivia: Rain, Desert, and More Rain	65
Chapter 4.	
Northern Peru: Fog on the Coast and in the Mountains	113
Chapter 5.	
South Central Peru: Cacti and Snow	167
Chapter 6.	
Southwestern Argentina: The Search for <i>Maihuenia</i>	203
Chapter 7.	
Northwestern Argentina: Deserts, Rainforests, Mountains, and <i>Oreocereus</i>	249
Bibliography	295
Index	299

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This stem of *Azureocereus viridis* shows several important adaptations—delayed bark formation (if bark were present, the stem would be brown), ribs, and spines—that permit cacti to survive.

With its round, green base, numerous
short white spines, and white hair,
Melocactus schatzlii of Venezuela
is easy to recognize.

Echinopsis klingleriana in Bolivia always has small globose bodies.
It never becomes large or columnar.

This specimen of *Opuntia quimilo* in General Güemes, Argentina, is a good representative of the subfamily Opuntioideae. It has the flat, padlike stems of prickly pears, yet can grow as large as a tree; its hard woody trunk is probably a primitive feature.

This *Cereus aethiops* specimen was photographed in the Jardin Exotique in Monaco and is obviously not suffering from lack of water. Its shoots are so well hydrated they are swollen, pushing the ribs outward. The ribs too have expanded to the point of being broad and flat.

Tall plants of *Stetsonia coryne* and clear blue skies indicate that we are in the chaco region where the soil is thick but not rocky, and where humid, wet seasons alternate with those that are hot and dry. The area resembles southern Texas, where humidity from the Gulf of Mexico helps create dense vegetation of small trees and shrubs that are difficult to walk through.

This is dimorphic wood of the type found in *Samaipaticereus*. When the stem was young, it produced the wood at its center (the dark red-purple band). The color is dark because of the many thick-walled fiber cells that give the wood its strength. The white circles are the water-conducting cells called vessels. When the stem was older and wider, it produced the bluish wood. It is blue because the cells have only thin, weak walls, and there are only a few vessels (the small red circles). Most trees or shrubs produce only strong, fibrous wood.

Plants of *Espostoa* (*Vatricania*) *guentheri* are tall and have as many as fifteen branches. Each branch grows to be about 5 to 10 feet (1.5 to 3 m) long before beginning to produce the long, roan-colored spines of their lateral cephalium. Notice the abundance of green vegetation in the background; the area is dry and hot at times, but wet enough to support leafy trees and shrubs.

Leaves of *Quiabentia pflanzii* are fat and shiny, much thicker and broader than those of other opuntias.

Although quiabentias look like giant jade plants, their spines and glochids clearly differentiate them. In our experience, quiabentias have the most painful spines of all cacti.

Our cultivated plants have survived mild frosts in Texas and are beautiful plants, but their spines are so painful it is difficult to recommend them for home gardens.

Bolivian cows are learning that it is much warmer to sleep on pavement than in wet mud. The cows are, of course, not the white, easy-to-see breed; they are the black, blend-in-with-the-blacktop cows. We zigzag our way around each of the bucolic bovines as we head to Santa Cruz, where we conclude our exploration of cacti in Bolivia.

This is a big but not exceptional plant of *Neoraimondia gigantea* near Saña. There is only enough moisture here to support a few leafy shrubs, and most of the soil is bare. The top 2 feet (60 cm) of the leftmost stem appears to be this year's growth because the epidermis is fresh and unblemished. The three tallest stems, however, appear quite old because of the bark covering them and the typical elongate areoles.

Weberbauerocereus johnsonii shows two unusual features, its ability to grow in a moist area (despite being covered with lichens and bromeliads), and the tuft of hair on the tops of two stems. Perhaps the tufts of hair are simply flower buds.

Mila nealeana during an August drought will not win any beauty contests,
although it is a pleasant little plant.
These are slightly sunburned and shrunken because of lost water.

After March rains, plants of *Mila nealeana* are swollen and green.
Although they are flowering now, the presence of fruits indicates they have been flowering
for several weeks. Flower buds are present but are too small to see here;
this plant will continue flowering for many more days.

Plants of *Soehrensia formosa* achieve the largest size of any in the genus, although it was only at one location that we saw really large ones like this. Other areas had plants only half this size.

Seeds of tephrocacti (this is from a specimen of *Tephrocactus aoracanthus*) have a spongy, light seed coat consisting of highly enlarged, air-filled cells.

Seed of pterocacti have a thin, winglike rim of cells that projects out around the edge of the seed (*ptero-* means “wing,” as in the flying pterodactyl, or wing finger, dinosaurs).

The wing may allow the seeds to be blown by wind or to float
as rainwater runs across the desert floor.

Our trip through the southwestern parts of Argentina has been a great success. We obtained our main genus *Maihuenia* in the first few days in Patagonia, and then had great luck every day after that. From here, we turn our attention to the north of Mendoza and the northwestern parts of Argentina.

